

Countryside and Energy—Fshat i Energjisë

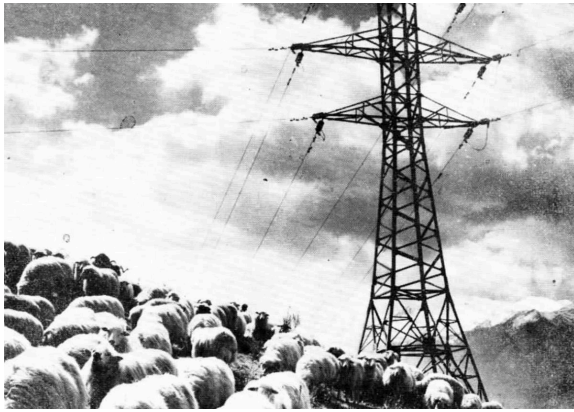
Energy Independence for Albania: Production or Reduction?

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The economy is growing, energy consumption is rising. Albania needs more energy. Or perhaps not? Albania is considered one of the “greenest” electricity producers in Europe, using almost solely hydroelectric power. However, it is certainly not the greenest consumer, due to the need to import “dirty” electricity from neighbouring countries caused by seasonal inconsistencies of hydro power production. During the winter, rainfall accounts for an overproduction of energy and the opposite occurs in summer.

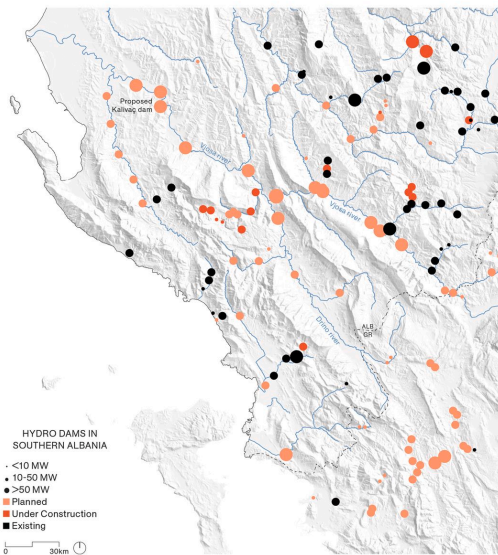
The Government’s response to the fluctuating demand is to construct new hydro plants along the Vjosa, Drino and Bistrica rivers in the south—alongside rural Albanian communities. Hydroelectricity is a renewable energy source—but the dams negatively impact the environment. The Vjosa river is one of the last wild rivers in Europe. Dam construction along the Vjosa River is heavily protested due to its detrimental impact on the natural environment of the current free meandering course.



The electrification of the country is fully completed in Albania on October 25th, 1970. Source: *Albania Today*, No. 3, May/June 1973.



Low water levels at the Bulos irrigation reservoir in the flatlands of the Drino Valley during the summer 2018. Photograph: Egisa Gjika.



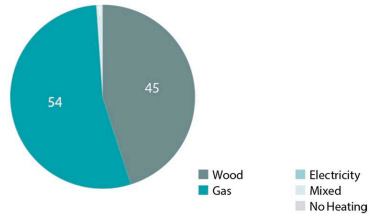
Hydro dams in Southern Albania.



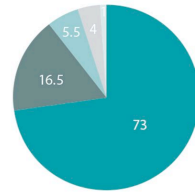
River sediment impacted by excavations. Photograph: River Watch [<https://riverwatch.eu/en/archive/201702>].

Energy Consumption in the Drino Valley: The Example of Nivan, Asim Zeneli, Gjirokastër

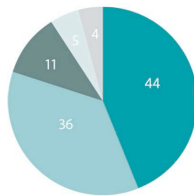
By analysing three sites in the Drino Valley with different altitudes, lifestyles and scales, we identified different types of energy consumption in the Drino Valley. Remote villages, such as Nivan, use local wood as the main energy source, small towns in the valley, such as Asim Zeneli, shop for fossil fuels, and the urban centres, such as Gjirokastër, heat with electricity.



Wood storage in front of a house in Nivan, 2019. Photograph: Egisa Gjika.

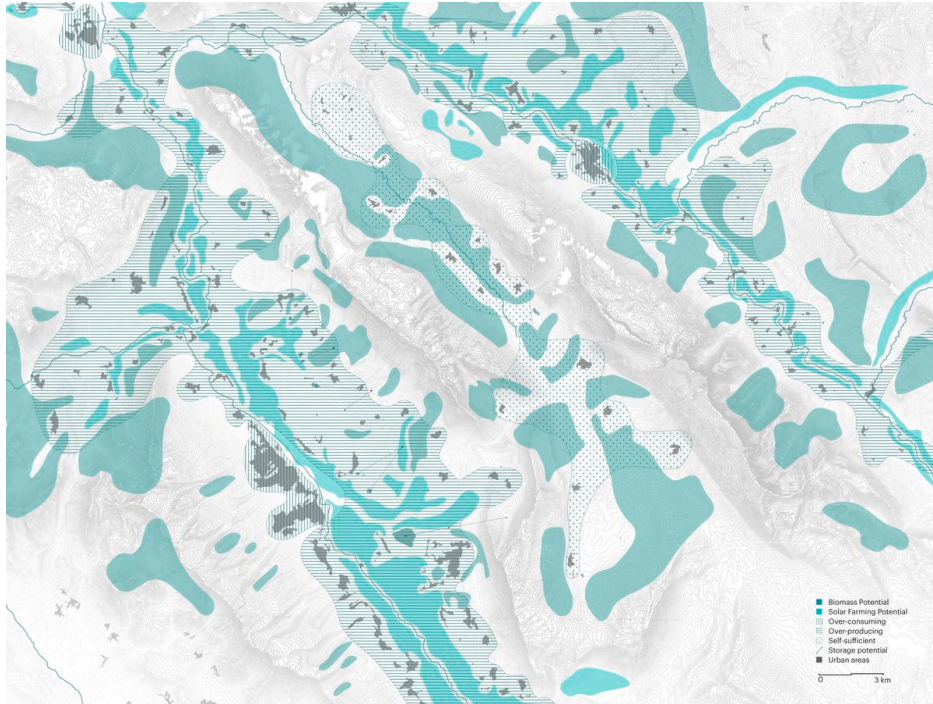


View from a house in Asim Zeneli into Drino Valley, 2019.



Electricity infrastructure in Gjirokastrë, 2019. Photograph: Google Street View [<https://goo.gl/maps/BCi2T8Da9FTmZzWq9>].

The Agroenergy Park

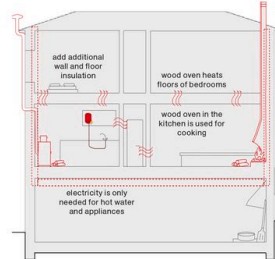
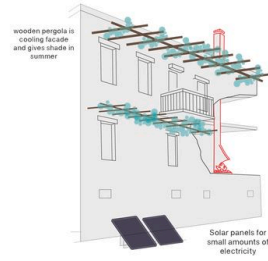


Local Energy Network: A Scenario for 2050.

Increasing production will not solve the issue—the focus needs to be on storing excess production. Albanias centralised energy grid creates a disconnect between the energy source and the energy consumer. In order to begin to combat this issue, we need to be able to store and manage energy locally, so that domestically produced energy can be used on demand. A decentralised grid will help to localise production in the Gjirokastër region and reduce the overall consumption.



Traditional wood oven that also acts as a cooking stove.
Open.



Small-scale interventions may increase the efficiency of energy consumption and allow for local energy production in existing buildings. Photograph: Nazlı Tümerdem.



The new energy landscapes in 2050 centre around existing water bodies being transformed into storage reservoirs to capitalise on excess production.



Combining agricultural fields with solar energy production or the planting of new reproductive forests with leisure areas for the local population create exciting synergies.

ACKNOWLEDGEMENTS

Firstly we thank the Polytechnic University of Tirana and the government for working with us. Also we want to thank Edvin Zhllima for helping us out. We also thank Marsi, Epaminoda Semis and Kiara Mucka for giving us insight in their homes.

SOURCES

- “Albanian Woman Picking Cotton”, visited July 11 2022 <https://www.loc.gov/item/93515734/>
- INSTAT, visited July 11 2022 <http://www.instat.gov.al>
- Kokushta Petro: “Reaching the Heights of Light”. 1981
- Leeway Collective: “The Undamaged”, visited July 11 2022 <https://balkanriverdefence.org/the-undamaged/>
- MerrJep.al, visited July 11 2022 <https://www.merrjep.al/njoftimi/vendbanime/apartamente/shitet/gjirokaster/apartament-ne-shitje-gjirokaster/5963932>
- Mining Greece Coal, visited July 11 2022 <https://www.mininggreece.com/mining-greece/%20minerals/coal/>
- Riverwatch, EuroNatur and EcoAlbania: “Hpp Kalivaç Revisited – Vjosa at risk once again”, visited July 11 2022 <https://riverwatch.eu/de/node/512>
- Riverwatch, visited July 11 2022 <https://riverwatch.eu/en/balkanrivers/map>
- Run-of-River Hydropower, visited July 11 2022 <https://medium.com/@khanya.bouma/run-of-river-hydropower-a312f6cc83db>
- “The Cleanest Line”, visited July 11 2022 <https://patagonia.typepad.com/thecleanestline/>

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